Access DB# 84669
84825

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Myron Hill Examiner #: 78884 Date: 1/14/03
Art Unit: 1648 Phone Number 30 8-4521 Serial Number: 09/518,076
Mail Box and Bldg/Room Location: 8E12 8A16 Results Format Preferred (circle): PAPER DISK E-MAIL
mej

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Inhibitors of Serine Protease Activity

Inventors (please provide full names): Lelan Shapiro

Earliest Priority Filing Date: 09/15/1999

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please Search claim 15 - all species, start w elected species
- Please search compound(s) for use in method to treat Herpes
- Please note STN Reg or CAS compound number
- Please call or I can stop by to make sure I understand results so I can explain or search more if needed.

Thanks.

- Also, are compounds as listed in US 5216022 included)

Mary Jane Ruhl
Tech. Info. Specialist, STIC
TC-1600
CM-1, Room 6A-06
Phone: 605-1155

****

STAFF USE ONLY		Type of Search		Vendors and cost where applicable	
Searcher:		NA Sequence (#)		STN	100
Searcher Phone #:		AA Sequence (#)		Dialog	
Searcher Location:		Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	1/21/03	Bibliographic		Dr.Link	
Date Completed:	1/28/03	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	10	Fulltext		Sequence Systems	
Clerical Prep Time:		Patent Family		WWW/Internet	
Online Time:	20	Other		Other (specify)	

PTO-1590 (8-01)

Ruhl, Mary Jane
From: mvondran@cas.org
Sent: Monday, January 27, 2003 12:06 PM
To: Maryjane.Ruhl@USPTO.GOV; wmercier@cas.org
Subject: Re: FW: A nasty chemical name!

Hi Mary Jane,

In looking at the structure in question, I believe you
are correct in noting that it should look just like
the author's structure that you provided. (I spoke with our department's peptide expert, and she helped me out!) The RN is 208840-22-6. (Otherwise, I'd be happy to fax you the structure.) The 1-(near the beginning of the name is telling you where the oxadiazolylcarbonyl group is going on the propyl, and the 2-(S)- is where the methyl goes on the propyl. Since it is not otherwise specified, it is assumed the rest of the compound is also attached at the 1-position of the propyl. You were very close!!

Have a good day! Let me know if you need anything further!

Michelle

Received: from ntexch02.intra.cas.org (mail-server [134.243.20.201]) by srv01.cas.org (8.12.5/m8.12.5/CAS_MAIL_HUB-2.00) with ESMTP id h0R2PIYc017812 for <mvondran@cas.org>; Sun, 26 Jan 2003 21:25:18 -0500 (EST)

Received: by ntexch02.intra.cas.org with Internet Mail Service (5.5.2653.19) id <C2WW2GQ1>; Sun, 26 Jan 2003 21:25:19 -0500

Message-ID:
<0DBCFBC9A19A294DA1F7128209329BED011A41E9@ntexch02.intra.cas.org>
From: "Mercier, Bill" <wmercier@cas.org>
To: "Vondran, Michelle" <mvondran@cas.org>
Subject: FW: A nasty chemical name!
Date: Sun, 26 Jan 2003 21:25:18 -0500
MIME-Version: 1.0
X-Mailer: Internet Mail Service (5.5.2653.19)
Content-Type: multipart/mixed; boundary="----_=_NextPart_000_01C2C5AB.555D69E0"
Content-Length: 5637535

Can you take a look at this?

Thanks,
Bill

-----Original Message-----
From: Maryjane.Ruhl@USPTO.GOV [mailto:Maryjane.Ruhl@USPTO.GOV]
Sent: Thursday, January 23, 2003 4:46 PM
To: wmercier@cas.org
Subject: A nasty chemical name!

Hi Bill,

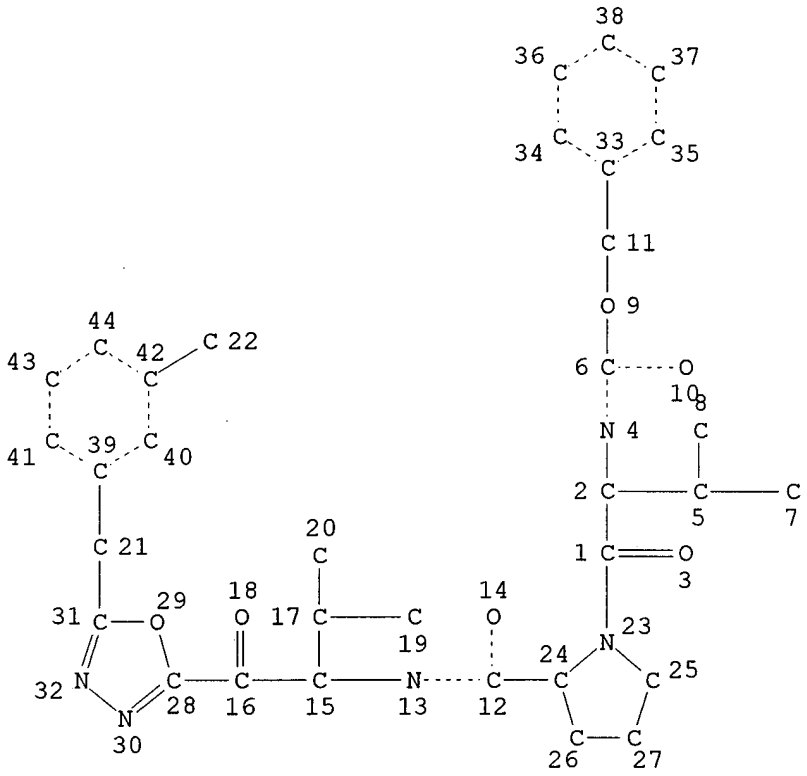
I wonder whether I might fax you a name that an examiner would like to have

structured and searched? I came up with a semblance of a structure, based on the name from the inventor's claim. Problem is, it doesn't resemble the names and structures for the inventor's work that I've been able to find. I can fax the name, what I drew, and the inventor's compound that I believe is the one we're looking for-and anything else you'd like to see!!!

It's a prolinamide.

Thank you,
Mary Jane

ENTER (DIS), GRA, NOD, BON OR ?:dis



208840-22-6/RN

January 23, 2003

TELEFAX (four pages, total)

TO: Bill Mercier, STN

FROM: Mary Jane Ruhl, PTO

RE: Chemical Name

I sent you an email and decided to go ahead and fax this info to you. I emailed Michelle and learned that she hasn't signed the PTO confidentiality agreement. She offers to help if required, although it's not a very complicated name—just a bit confusing to me.

Here are the following:

A. The name that needs to be structured.

B. My attempt at a structure. What's throwing me off is the "methylpropyl" part of the name, vis a vis the structure in

C. which is from inventor's work, and perhaps the structure we're looking for. I'm wondering why CAS calls it "propyl" but structures it as i-Pr? Or perhaps I'm way off track, which doesn't really matter. What matters is what the structure for "A" looks like!

Many thanks,
Mary Jane
Fax: 703-308-4496

an herpes virus type V (HHV-5), human herpes virus type VI (HHV-6), human herpes virus type II (HHV-8), and combinations thereof.

11. The method of claim 1 in which the therapeutically effective amount of the substance exhibiting mammalian alpha-1-antitrypsin (AAT) or AAT-like activity is in the range of about 1 mg per kg to about 100 mg per kg of body weight of the mammalian subject.

12. The method of claim 1 in which the therapeutically effective amount of the substance is administered systemically or topically.

13. The method of claim 1 in which said herpes virus infection is one of a mucosa and is selected from an infection of the oral soft tissues, middle ear, gastrointestinal tract, urogenital tract, airway/lung tissue, eye, peritoneal membranes, or combinations thereof.

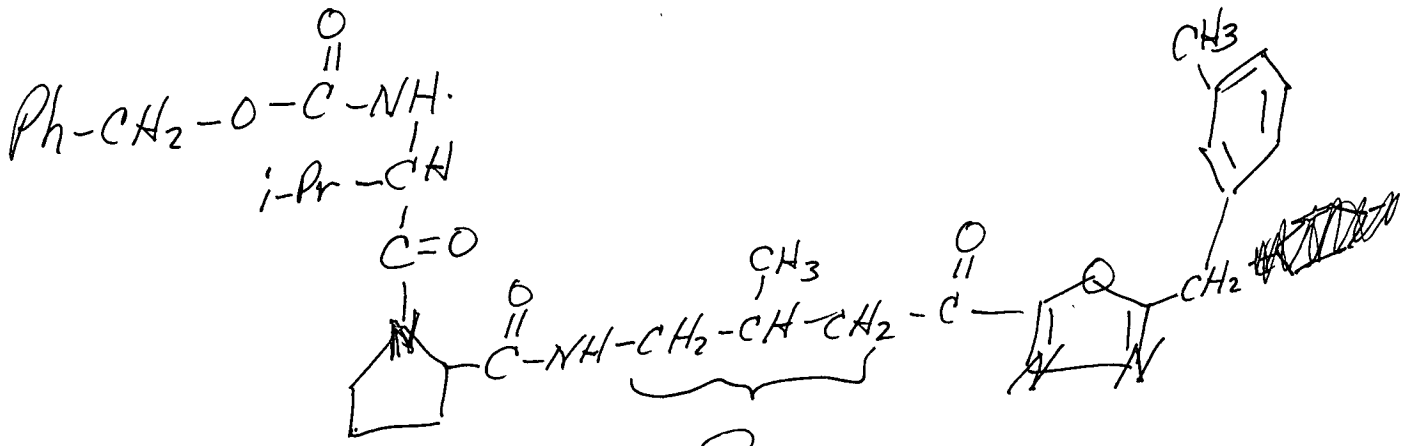
14. The method of claim 13 in which the substance is administered topically to said mucosa.

15. The method of claim 1 in which the substance is (benzyloxycarbonyl)-L-valyl-N-[1-(3-(5-(3-trifluoromethylbenzyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-methylpropyl]-L-prolinamide benzyloxycarbonyl)-L-valyl-N-[1-(3-(5-(2-phenylethyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-methylpropyl]-L-prolinamide; (benzyloxycarbonyl)-L-valyl-N-[1-(3-(5-(2-methoxybenzyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-methylpropyl]-L-prolinamide; (benzyloxycarbonyl)-L-valyl-N-[1-(3-(5-(trifluoromethyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-methylpropyl]-L-prolinamide; (benzyloxycarbonyl)-L-valyl-N-[1-(3-(5-(methyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(difluoromethyl)-1,2,4-oxadiazolyl) carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(benzyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(3-methoxybenzyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(2,6-difluorobenzyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(trans-styryl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(trans-4-Trifluoro methylstyryl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(trans-4-Methoxystyryl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(3-Thienylmethyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide; (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(Phenyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-methylpropyl]-L-prolinamide; and (Benzyloxycarbonyl)-L-Valyl-N-[1-(3-(5-(3-Phenylpropyl)-1,2,4-oxadiazolyl)carbonyl)-2-(S)-Methylpropyl]-L-Prolinamide, **Benzyloxycarbonyl-L-valyl-N-[1-(2-[5-(3-methylbenzyl)-1,3,4-oxadiazolyl] carbonyl)-2-(S)-methylpropyl]-L-prolinamide**, Benzyloxycarbonyl-L-valyl-N-[1-(2-(3-methylbenzyl)-1,3,4-oxadiazolyl]carbonyl)-2-(S)-methylpropyl]-L-prolinamide; Benzyloxycarbonyl-L-valyl-N-[1-(2-(5-(methyl)-1,3,4-oxadiazoly]carbonyl)- 2-(S)-methylpropyl]-L-prolinamide; Benzyloxycarbonyl)-L-valyl-N-[1-(2-(5-(3-trifluoromethylbenzyl)-1,3,4-oxadiazolyl]carbonyl)-2-(S)-methylpropyl]-L-prolinamide; (Benzyloxycarbonyl)-L-valyl-N-[1-(2-(5-(4-Dimethylamino benzyl)-1,3,4-oxadiazolyl]carbonyl)-2-(S)-methylpropyl]-L-prolinamide; Benzyloxycarbonyl)-L-valyl-N-[1-(2-(5-(1-napthylenyl)-1,3,4-oxadiazolyl]carbonyl)-2-(S)-

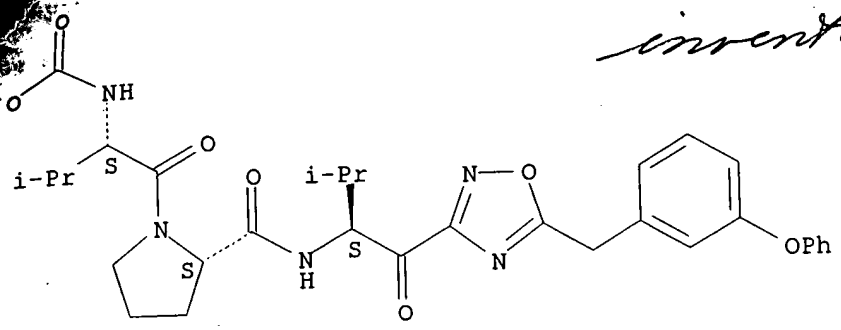
elected for spe

(A)

(B)

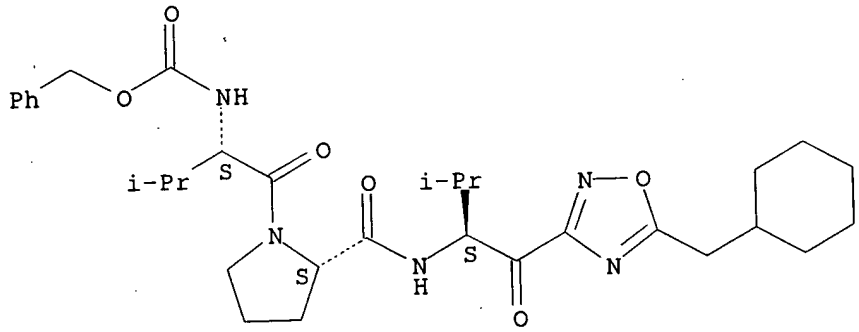


These are from inventors' work —



RN 208840-21-5 HCAPLUS
CN L-Prolinamide, N-[(phenylmethoxy)carbonyl]-L-valyl-N-[(1S)-1-[[5-(cyclohexylmethyl)-1,2,4-oxadiazol-3-yl]carbonyl]-2-methylpropyl]- (9CI) (CA INDEX NAME)

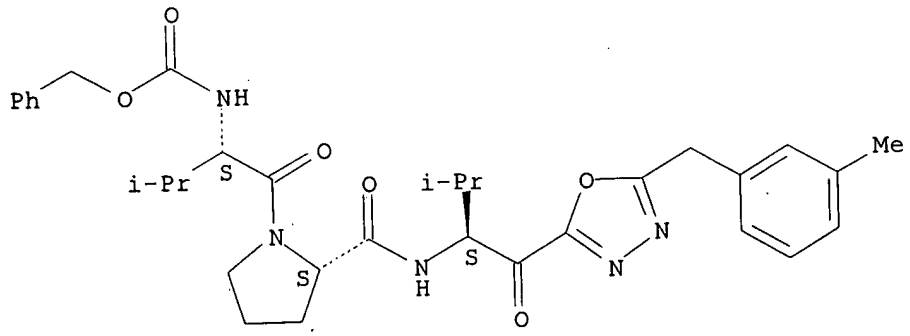
Absolute stereochemistry.



RN 208840-22-6 HCAPLUS
CN L-Prolinamide, N-[(phenylmethoxy)carbonyl]-L-valyl-N-[(1S)-2-methyl-1-[[5-[(3-methylphenyl)methyl]-1,3,4-oxadiazol-2-yl]carbonyl]propyl]- (9CI) (CA INDEX NAME)

This may be the one we're looking for. The "propyl" nomenclature is confusing to me.

Absolute stereochemistry.



RN 208840-24-8 HCAPLUS

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=> d his

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L1             1 S 208840-22-6/RN

     FILE 'HCAPLUS' ENTERED AT 16:44:36 ON 28 JAN 2003
L2            19 S L1
L3             2 S L2 AND ?HERPES?

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
     16:47:02 ON 28 JAN 2003
L4             0 S L3
L5             1 S ?PROLINAMID? AND ?HERPES?

     FILE 'REGISTRY' ENTERED AT 16:49:02 ON 28 JAN 2003
L6                STRUCTURE 208840-22-6

     FILE 'REGISTRY' ENTERED AT 16:50:56 ON 28 JAN 2003
L7             0 S L6

     FILE 'HCAPLUS' ENTERED AT 16:50:57 ON 28 JAN 2003
L8             0 S L7

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
     16:51:16 ON 28 JAN 2003
L9             0 S L2
L10            0 S ?BENZYLOXYCARBONYL?(3A)?VALYL?(3A)?OXADIAZOLYL?(3A)?CARBONYL?
L11        10726 S ?BENZYLOXYCARBONYL?
L12         1192 S ?OXADIAZOLYL?
L13           22 S L11 AND L12
L14            0 S L13 AND ?HERPES?
L15            2 S L13 AND ?VALYL?
L16           70 S L11 AND ?HERPES?
L17           23 S L12 AND ?HERPES?
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Reg. no. of species

19 cits for species – attached

2 " with herpes – attached

zero cits from other databases

1 cit with prolinamid – attached

– structure of species attached

from other databases:

23 cits for oxadiazolyl + herpes – attached

09/578,076

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 Volume in drive A has no label
 Directory of A:\

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SEQ-11    APP            557   03-02-00  1:41p SEQ-11.APP
SEQ11     TXT              5   03-02-00 11:55a seq11.txt
SEQ-111   APP            558   03-02-00  1:45p SEQ-111.APP
SEQ12     TXT              5   03-02-00  3:43p seq12.txt
SEQ-121   APP            558   03-02-00  3:43p SEQ-121.APP
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SEQ18     TXT              5   03-02-00 12:01p seq18.txt
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partial listing of files on Sequence I

09/518,076

SEQUENCE LISTING

<110> Shapiro, Leland

<120> Inhibitors of Serine Protease Activity, Methods and Compositions For Treatment of Viral Infections

<130> 114232-101 Sequence 10

<140> 60/137,795
<141> 1999-06-03

<160> 1

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<210> 1
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<212> PRT
<213> Homo sapiens

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Phe Leu Phe Phe Ile
1 5

Sample of one file on Disk I

Appendix A To Subpart G to Part 1—Sample Sequence Listing

<110> Smith, John

Smith, Jane

<120> Example of a Sequence Listing

<130> 01-00001

<140> US 08/999,999

<141> 1998-02-28

<150> EP 91000000

<151> 1997-12-31

Please consult

<160> 2

<170> PatentIn ver. 2.0

<210> 1

<211> 403

<212> DNA

<213> Paramecium aurelia

<220>

<221> CDS

<222> 341..394

<300>

<301> Doe, Richard

<302> Isolation and Characterization of a Gene Encoding a Protease from Paramecium sp.

<303> Journal of Fictional Genes

<304> 1

<305> 4

<306> 1 - 7

<307> 1988-06-20

<400> 1

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ctgactgact ctgagatagt cgagcccgta cgagacccgt cgagggtgac agagagtggg 180

cgcgtgcgcg cagagcgccg cgccggtgcg cgcgcgagtg cgcggtgggc cgcgcgaggg 240

ctttcgcggc agcggcggcg ctttccggcg cgcgcccgtc cgcccctaga cctgagaggt 300

cttctcttcc ctcctcttca ctagagaggt ctatatatac atg gtt tca atg ttc 355

Met Val Ser Met Phe

1 5

agc ttg tct ttc aaa tgg cct gga ttt tgt ttg ttt gtt tgtttgctc 403

Ser Leu Ser Phe Lys Trp Pro Gly Phe Cys Leu Phe Val

10 15

<210> 2

<211> 18

<212> PRT

<213> Paramecium aurelia

<400> 2

Met Val Ser Met Phe Ser Leu Ser Phe Lys Trp Pro Gly Phe Cys Leu

1 5 10 15

Phe Val

ed: May 22, 1998.
· A. Lehman,
ant Secretary of Commerce and
nissioner of Patents and Trademarks.
oc. 98-14194 Filed 5-29-98; 8:45 am]
3 CODE 3510-16-C

identifiers and their accompanying information as shown in the following table. The numeric identifier shall be used only in the "Sequence Listing." The order and presentation of the items of information in the "Sequence Listing" shall conform to the arrangement given below. Each item of information shall begin on a new line and shall begin with the numeric identifier enclosed in angle brackets as shown. The submission of those items of information designated with an "M" is mandatory. The submission of those items of information designated with an "O" is optional. Numeric identifiers <110> through <170> shall only be set forth at the beginning of the "Sequence Listing." The following table illustrates the numeric identifiers.

Numeric Identifier	Definition	Comments and Format	Mandatory (M) or Optional (O)
<110>	Applicant	Preferably max. of 10 names; one name per line; preferable format: Surname, Other Names and/or Initials	M
<120>	Title of Invention		M
<130>	File Reference	Personal file reference	M when filed prior to assignment of appl. number
<140>	Current Application Number	Specify as: US 07/999,999 or PCT/US96/99999	M, if available
<141>	Current Filing Date	Specify as: yyyy-mm-dd	M, if available
<150>	Prior Application Number	Specify as: US 07/999,999 or PCT/US96/99999	M, if applicable include priority documents under 35 USC 119 and 120
<151>	Prior Application Filing Date	Specify as: yyyy-mm-dd	M, if applicable
<160>	Number of SEQ ID NOs	Count includes total number of SEQ ID NOs	M
<170>	Software	Name of software used to create the Sequence Listing	O
<210>	SEQ ID NO:#:	Response shall be an integer representing the SEQ ID NO shown	M
<211>	Length	Respond with an integer expressing the number of bases or amino acid residues	M

<212>	Type	Whether presented sequence molecule is DNA, RNA, or PRT (protein). If a nucleotide sequence contains both DNA and RNA fragments, the type shall be "DNA." In addition, the combined DNA/RNA molecule shall be further described in the <220> to <223> feature section.	M
<213>	Organism	Scientific name, i.e. Genus/species, Unknown or Artificial Sequence. In addition, the "Unknown" or "Artificial Sequence" organisms shall be further described in the <220> to <223> feature section.	M
<220>	Feature	Leave blank after <220>. <221-223> provide for a description of points of biological significance in the sequence.	M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence; if ORGANISM is "Artificial Sequence" or "Unknown"; if molecule is combined DNA/RNA.
<221>	Name/Key	Provide appropriate identifier for feature, preferably from WIPO Standard ST.25 (1998), Appendix 2, Tables 5 and 6	M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence
<222>	Location	Specify location within sequence; where appropriate state number of first and last bases/amino acids	M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified

		in feature	base was used in a sequence
<223>	Other Information	Other relevant information; four lines maximum	M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence; if ORGANISM is "Artificial Sequence" or "Unknown"; if molecule is combined DNA/RNA.
<300>	Publication Information	Leave blank after <300>	O
<301>	Authors	Preferably max of ten named authors of publication; specify one name per line; preferable format: Surname, Other Names and/or Initials	O
<302>	Title		O
<303>	Journal		O
<304>	Volume		O
<305>	Issue		O
<306>	Pages		O
<307>	Date	Journal date on which data published; specify as yyyy-mm-dd, MMM-yyyy or Season-yyyy	O
<308>	Database Accession Number	Accession number assigned by database including database name	O
<309>	Database Entry Date	Date of entry in database; specify as yyyy-mm-dd or MMM-yyyy	O
<310>	Patent Document Number	Document number; for patent-type citations only. Specify as, for example, US 07/999,999	O

<311>	Patent Filing Date	Document filing date, for patent-type citations only; specify as yyyy-mm-dd	O
<312>	Publication Date	Document publication date, for patent-type citations only; specify as yyyy-mm-dd	O
<313>	Relevant Residues	FROM (position) TO (position)	O
<400>	Sequence	SEQ ID NO should follow the numeric identifier and should appear on the line preceding the actual sequence	M

5. Section 1.824 is revised to read as follows:

1.824 Form and format for nucleotide and/or amino acid sequence submissions in computer readable form.

(a) The computer readable form required by 1.821(e) shall meet the following specifications:

(1) The computer readable form shall contain a single "Sequence Listing" as either a diskette, series of diskettes, or other permissible media outlined in paragraph (c) of this section.

(2) The "Sequence Listing" in paragraph (a) (1) of this section shall be submitted in American Standard Code for Information Interchange (ASCII) text. No other formats shall be allowed.

(3) The computer readable form may be created by any means, such as word processors, nucleotide/amino acid sequence editors or other custom computer programs; however, it shall conform to all specifications detailed in this section.

(4) File compression is acceptable when using diskette media, so long as the compressed file is in a self-extracting format that will decompress on one of the systems described in paragraph (b) of this section.

(5) Page numbering shall not appear within the computer readable form version of the "Sequence Listing" file.

(6) All computer readable forms shall have a label permanently affixed thereto on which has been hand-printed or typed: the name of the applicant, the title of the invention, the date on which the data were recorded on the computer readable form, the operating system used, a reference number, and an application serial number and filing date, if known.

(b) Computer readable form submissions must meet these format requirements:

(1) Computer: IBM PC/XT/AT, or compatibles, or Apple Macintosh;

(2) Operating System: MS-DOS, Unix or Macintosh;